

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

THIS PAGE BLANK (USPTO)

PT uptake activity.

XX

PS Claim 34; Page 104-106; 148pp; English.

XX The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile transporter, and patients suffering from adult-onset chronic idiopathic bile acid diarrhoea. The DNA and protein may be used in screening methods as modulators of ileal/renal bile acid cotransport

XX Sequence 348 AA:

Query Match 44.7%; Score 884; DB 16; Length 348; Best Local Similarity 46.9%; Pred. No. 3; 8e-88; Matches 164; Conservative 74; Mismatches 102; Indels 10; Gaps 4; Matches 164; Conservative 74; Mismatches 102; Indels 10; Gaps 4;

Db 7 SSSACPANS--EBELPVGLEVHGN--LELVFPTVSTWMGLIMFSLGCSVIRKLSHTI 62

3 NSSICNPNTAICGDSCTIAPESNFNAISVMSVTLTILLALMFSMGNCNVELHKEFGHL 62

Db 63 RRPWGIAVGLCORGIMPTAVILAISSLKPVQIAVLMQCCPGSTISNIFTWDGD 122

63 RRPWGIAVGLCORGIMPTAVILAISSLKPVQIAVLMQCCPGSTISNIFTWDGD 122

Db 123 MDSISMTCSTVIALGMPICLYWWSLQONLTIPQIGITVCLTIPVARGVIV 182

Db 123 MDSISMTCSTVIALGMPICLYWWSLQONLTIPQIGITVCLTIPVARGVIV 182

Db 183 NYRWPKOSKTIKIGAVVGGVLLVVAVAGVVAKGSMNSDTLTISFIRPLIGHWGF 242

Db 183 NYRWPKOSKTIKIGAVVGGVLLVVAVAGVVAKGSMNSDTLTISFIRPLIGHWGF 242

Db 243 LALFTHQSWRERTISLETGAONIOMCTMOLSLFTEAHVQWMLSPLAYGLFQLDGF 302

Db 243 LALFTHQSWRERTISLETGAONIOMCTMOLSLFTEAHVQWMLSPAYGLFQLDGF 302

Db 303 LIVAYQTYKRRKLNKHKNSCCTEVCHTRKS--TSETRETNALENEE 350

Db 303 LIVAYQTYKRRKLNKHKNSCCTEVCHTRKS--TSETRETNALENEE 350

RESULT 2

AAR77225 AAR77225 standard; Protein; 348 AA.

XX Sequence 348 AA:

Query Match 43.5%; Score 860.5; DB 16; Length 348; Best Local Similarity 45.6%; Pred. No. 1.4e-85; Matches 160; Conservative 68; Mismatches 104; Indels 19; Gaps 4; Matches 160; Conservative 68; Mismatches 104; Indels 19; Gaps 4;

Db 14 CSGASCVPESPNFNI-----LSVSVSTVLLALMFSMGNCNVELHKEFGHL 64

Db 65 PWGIAVGLCORGIMPTAVILAISSLKPVQIAVLMQCCPGSTISNIFTWDGDMD 124.

Db 65 PWGIAVGLCORGIMPTAVILAISSLKPVQIAVLMQCCPGSTISNIFTWDGDMD 124

Db 125 LSISMTCSTVIALGMPICLYWWSLQONLTIPQIGITVCLTIPVARGVIV 184

Db 125 LSISMTCSTVIALGMPICLYWWSLQONLTIPQIGITVCLTIPVARGVIV 184

Db 185 RWPKOSKTIKIGAVVGGVLLVVAVAGVVAKGSMNSDTLTISFIRPLIGHWGFLL 244

Db 185 RWPKOSKTIKIGAVVGGVLLVVAVAGVVAKGSMNSDTLTISFIRPLIGHWGFLL 244

Db 245 ALFTHQSWRERTISLETGAONIOMCTMOLSLFTEAHVQWMLSPAYGLFQLDGFJ 304

Db 245 ALFTHQSWRERTISLETGAONIOMCTMOLSLFTEAHVQWMLSPAYGLFQLDGFJ 304

Db 305 VAYQTYKRRKLNKHKNSCCTEVCHTRKS--TSETRETNALENEE 355

XX Sequence 348 AA:

Query Match 43.5%; Score 860.5; DB 16; Length 491; Best Local Similarity 45.6%; Pred. No. 1.4e-85; Matches 491; Conservative 183; Mismatches 144; Indels 19; Gaps 4; Matches 491; Conservative 183; Mismatches 144; Indels 19; Gaps 4;

Db 1 AAE13283 AAE13283 standard; Protein; 491 AA.

XX Sequence 491 AA:

Db 2 AAE13283; AAE13283; AAE13283;

XX Sequence 491 AA:

Db 3 Human transporters and ion channels (TRICH)-10.

XX Human transporters and ion channels (TRICH)-10.

XX Human; transporter and ion channel; TRICH; akinesthesia; cystic fibrosis; diabetes mellitus; Parkinson's disease; myasthenia gravis; dementia; cardiac disorder; angina; hypertension; myocarditis; cataract; infertility; neurological disorder; Alzheimer's disease; cataract; infertility;

XX Wilson's disease; schizophrenia; Grave's disease; addison's disease; Huntington's disease; multiple sclerosis; meningitis; hypotensive; cardiac; nootropic; neuroprotective; neuroleptic; ophthalmological; antithyroid; anticonvulsant; goitre; antiinflammatory.

DR WPI: 1995-246189/32.

DR N-PSDB; AAQ91109.

XX

PT Hamster and human ileal and bile acid transport DNA and protein useful in treatment of e.g. hypercholesterolaemia, diabetes and various digestive diseases, and in gene therapy to restore bile acid uptake activity.

XX

PS Claim 34; Page 111-114; 148pp; English.

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PT The ileal/renal bile acid cotransporter protein is useful in the treatment of hypercholesterolaemia, diabetes, heart disease, liver disease and various digestive disorders. The cDNA may be used in gene therapy to restore bile acid uptake activity to patients whose ileum has been surgically resected for diseases such as Crohn disease, patients born with congenital defects in the bile

XX

PH	Key	Location/Qualifiers	Db	172 LCGCPGPNLNSNMSLLVGDMLRLRALLALSSDVGSQSTPGLASPFPFLYSTYKK 231
FT	Domain	241..261 /label= Transmembrane_domain	Qy	126 -----SISMTCTAALGMPCLYLYMSW---SLOQNLITPQ 163
FT	Domain	251..439 /note= "Sodium, acid and bile transporter domain"	Db	232 VSWLFDSDKLVLISAHSLFCSIIMTISITLALVMPCLWISWAWINPIVQ--LLPLG 289
FT	Domain	288..307 /label= Transmembrane_domain	Qy	164 NIGITIVCLTIPVAGVYVNRWKQSKILKI-----GAVVGVLLV 207
FT	Domain	325..343 /label= Transmembrane_domain	Db	290 TWTNLCLSTLPIGHGVIRYKSVRADVIVKVSILWLVLFIMWTGTMUGELAS 349
FT	Domain	416..435 /label= Transmembrane_domain	Qy	208 VAVAGVVLAKGSWNNDITLITISFLPLIGHVTFGLFLPFLTHQSWORCTISLNGAQN 267
XX			Db	350 :PAATVIA-----IPMLAGYASGYGLATFLHLPNCKRIVCLETGSQV 446
PN		06-APR-2000; 2000US-195595P.	Qy	268 QMCITMLQISFTAELHLQMSFPLAYGLQOLIDPLIVAYQTYKRRKKN 318
XX		12-APR-2000; 2000US-196872P.	Db	396 QLCTAIIKLAFFPQFIGSMYMPFLYALFQSOAEAGIFVILYKMGSEMHLK
PR		20-APR-2000; 2000US-199020P.		
PR		05-MAY-2000; 2000US-200522P.		
PR		11-MAY-2000; 2000US-202348P.		
XX				
PA	(INCY-)	INCYTE GENOMICS INC.		
XX				
PI	Reddy R, Thornton M, Borowsky ML, Tang YT, Khan FA, Tribouley CM;		RESULT 4	
PI	Gandhi AR, Yao MG, Samanwala MS, Baughn MR, Nguyen DB;		AAE21252	
PI	Policky JL, Yue H, Seithamer JJ, Waiji NK, Lal P, Kearney L;		ID AAE21252 standard; Protein; 225 AA.	
PI	Walsh RT, Lu DAM, Lu Y, Greene BD, Raumann BE, Patterson C;		XX	
XX	WPI: 2002-017448/02.		AC AAE21252;	
DR	N-PSDB; AAD2002.		XX	
XX			01-JUL-2002 (first entry)	
PT	Polypeptides of human transporters and ion channels, useful for		DT	
PT	diagnosing, treating or preventing disorders of transport, neurological, muscle, immunological and cell proliferative disorders -		XX	
PT	associated with decreased expression of functional TRICH or condition		DB	
CC	or agonist of TRICH is useful for diagnosing a condition of disease associated		Human gene 8 encoded secreted protein fragment, SEQ ID NO:117.	
CC	with expression of TRICH in a subject, where the disorders include a		KW	
CC	transport disorder such as akinesthesia, cystic fibrosis, diabetes mellitus, Parkinson's disease, myasthenia gravis, cardiac disorders associated		KW	
CC	with transport e.g. angina, hypertension, myocarditis, neurological		KW	
CC	disorders associated with transport e.g. Alzheimer's disease, Wilson's		KW	
CC	disease, schizophrenia, cataracts, infertility, hyperglycaemia, Graves' disease, goitre, addison's disease, Huntington's disease, dementia,		KW	
CC	multiple sclerosis, bacterial and viral meningitis. TRICH DNA is useful		KW	
CC	for generating a transcript image of a tissue or cell type, which		KW	
CC	represents the global pattern of gene expression by a particular tissue		KW	
CC	or cell type and for analysing the prototype of a tissue or cell type.		KW	
CC	TRICH DNA is used in gene therapy. The present amino acid sequence is		KW	
XX	human TRICH protein.		KW	
SQ	Sequence 491 AA;		OS	
XX			Hom sapiens.	
XX				
PH	Key	Location/Qualifiers		
FT	Misc-difference	200 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	204 /label= Unknown		
FT				
FT	Misc-difference	205 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	210 /label= Unknown		
FT				
FT	Misc-difference	214 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	217 /label= Unknown		
FT				
FT	Misc-difference	218 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	219 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	220 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	221 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	222 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	223 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	224 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	225 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	226 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	227 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	228 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	229 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	230 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	231 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	232 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	233 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	234 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	235 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	236 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	237 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	238 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	239 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	240 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	241 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	242 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	243 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	244 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	245 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	246 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	247 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	248 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	249 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	250 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	251 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	252 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	253 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	254 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	255 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	256 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	257 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	258 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	259 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	260 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	261 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	262 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	263 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	264 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	265 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	266 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	267 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	268 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	269 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	270 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	271 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	272 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	273 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	274 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	275 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	276 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	277 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	278 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	279 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	280 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	281 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	282 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	283 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	284 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	285 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	286 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	287 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	288 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	289 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	290 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	291 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	292 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	293 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	294 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	295 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	296 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	297 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	298 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	299 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	300 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	301 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	302 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	303 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	304 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	305 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	306 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	307 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	308 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	309 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	310 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	311 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	312 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	313 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	314 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	315 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	316 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	317 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	318 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	319 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	320 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	321 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	322 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	323 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	324 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	325 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	326 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	327 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				
FT	Misc-difference	328 /note= "Xaa equals any of the naturally occurring L-amino acids"		
FT				

RESULT 6
 AAE21253
 ID AAE21253 standard; Protein; 207 AA.
 XX
 AC AAE21253;
 XX
 DT 01-JUL-2002 (first entry)
 XX
 Human gene 8 encoded secreted protein fragment, SEQ ID NO:18.
 KW Human; secreted protein; immune disorder; antiallergic; antirheumatic;
 KW rheumatoid arthritis; breast neoplasia; breast cancer; antiarthritic;
 KW neurological disease; Alzheimer's disease; Parkinson's disease; trauma;
 KW Tourette syndrome; encephalitis; cytostatic; haemostatic; anaemia; mania;
 KW antiinflammatory; ophthalmological; dermatological; immunostimulatory;
 KW immunomodulatory; immunosuppressive; antibacterial; antipsoriatic;
 KW gene therapy; autoimmune disease; Huntington's disease; meningitis;
 KW demyelinating disease; peripheral neuropathy; congenital malformation;
 KW spinal cord injury; peripheral neuropathy; ischaemia; perception;
 KW multiple sclerosis; infarction; haemorrhage; schizophrenia; dementia;
 KW depression; panic disorder; learning disorder; AUS; feeding disorder;
 KW hyperproliferative disorder; sleep pattern; cardiovascular disorder;
 KW reproductive disorder; digestive system disorder; behavioural disorder.
 KW
 OS Homo sapiens.
 XX
 PN WO200216390-A1.
 XX
 PD 28-FEB-2002.
 XX
 PP 17-JAN-2001; 2001WO-US01435.
 XX
 PR 18-AUG-2000; 2000US226282P.
 XX
 PA (HUMA-) HUMAN GENOME SCI INC.
 XX
 Rosen CA, Komatsoulis GA, Baker KB, Birse CE, Soppet DR, Olsen HS;
 Moore PA, Wei P, Ebner R, Duan DR, Shi Y, Choi GH, Fiscella M;
 Ni J;
 XX
 DR WPI; 2002-304113/34.
 XX
 PT An isolated nucleic acid molecule (1) comprising a polynucleotide which
 encodes a polypeptide useful in the diagnosis and treatment of
 PT disorders e.g. immune disorders -
 XX
 Disclosure; Page 26; 534pp; English.

RESULT 7
 ABB91897
 ID ABB91897 standard; Protein; 338 AA.
 XX
 AC ABB91897;
 XX
 DT 31-MAY-2002 (first entry)
 XX
 DE Herbicidally active polypeptide SEQ ID NO 1108.
 XX
 KW Herbicidal; plant; agriculture; herbicide.
 OS Arabidopsis thaliana.
 XX
 PN WO200210210-A2.
 XX
 PD 07-FEB-2002.
 XX
 PP 28-AUG-2001; 2001WO-EP09892.
 XX
 PR 28-AUG-2001; 2001WO-EP09892.
 XX
 PA (FARB) BAYER AG.
 XX
 PT Tietjen K, Weidler M;
 XX
 DR WPI; 2002-269010/31.
 XX
 PT Identifying plant target proteins for herbicidally active compounds,
 PT comprising aligning and comparing nucleic acid or amino acid sequences
 PT from plant with nucleic acid or amino acid sequences from non-plant
 PT organisms -
 XX
 PS Claim 5; SEQ ID NO 1108; 261pp + Sequence listing; English.
 XX
 CC The invention relates to identifying target proteins
 CC (ABB91897-00-ABB91897) for herbicidally active compounds, comprising
 CC aligning and comparing nucleic acid or amino acid sequences from plant
 CC with nucleic acid or amino acid sequences from non-plant organisms using
 CC suitable search parameters, where plant sequences having an E-value
 CC greater by a factor of 3 than the E-value of most similar non-plant

CC neuropathies induced by neurotoxins, peripheral neuropathies, multiple
 CC sclerosis, ischaemia and infarction, haemorrhages, schizophrenia, mania,
 CC altered behaviours e.g. disorders in feeding, sleep patterns, balance
 CC and perception, encephalitis, disorders in cardiovascular, neural/
 CC sensory, reproductive and digestive systems, behavioural disorders and
 CC hyperproliferative disorder. The present sequence represents human
 CC secreted protein fragment referred to in the disclosure of the invention.

Sequence 207 AA;
 SQ Query Match 16.1%; Score 318.5; DB 23; Length 207;
 Best Local Similarity 33.0%; Pred. No. 2.1e-26; Indels 35; Gaps 4;
 Matches 70; Conservative 40; Mismatches 67;

Matches 70; Conservative 40; Mismatches 67; Indels 35; Gaps 4;

DB 5 VDGDMDSISMTCSTVAAAGMMPLCYLYTWSN--SLSQNLNTIPYQIGITVCLTIP 175
 QY 119 VDGDMDSISMTCSTVAAAGMMPLCYLYTWSN--SLSQNLNTIPYQIGITVCLTIP 175
 DB 63 IGLGVPIRYKSVRADVIVKVSLSLVLVLFMTGTMGLPELLASIPAAVVA-- 119
 QY 220 WNSDTLTLTSFIFPLGIVGFLALPFTHOSWRCRTSLQETAQNTICMCTMOLSET 279
 DB 120 -----IFMPLAGVASYGGLATFLHFLPPNCRKTVCLETGSQNVLQCTAIKLAPP 168
 QY 280 AEHLVQMLSPLAGLFLQFLIDGLFLIVAQTY 311
 DB 169 PQFGSMYMPMLVLAFLQEAEGIVLVNY 200

CC sequences are selected. The polypeptides or nucleic acids encoding them are useful for identifying modulators. The identified modulators are

CC

PR	06-APR-1999;	99US-0128234.	PR	19-JUL-1999;	99US-0144332.
PR	08-APR-1999;	99US-0128714.	PR	19-JUL-1999;	99US-0144333.
PR	16-APR-1999;	99US-0129845.	PR	19-JUL-1999;	99US-0144334.
PR	19-APR-1999;	99US-0130077.	PR	19-JUL-1999;	99US-0144335.
PR	21-APR-1999;	99US-0130449.	PR	20-JUL-1999;	99US-0144332.
PR	23-APR-1999;	99US-0130510.	PR	20-JUL-1999;	99US-0144332.
PR	23-APR-1999;	99US-0130891.	PR	20-JUL-1999;	99US-0144332.
PR	28-APR-1999;	99US-0131449.	PR	21-JUL-1999;	99US-0144334.
PR	30-APR-1999;	99US-0132048.	PR	21-JUL-1999;	99US-0145086.
PR	04-MAY-1999;	99US-0132484.	PR	21-JUL-1999;	99US-0145088.
PR	05-MAY-1999;	99US-0132485.	PR	22-JUL-1999;	99US-0145087.
PR	06-MAY-1999;	99US-0132486.	PR	22-JUL-1999;	99US-0145089.
PR	07-MAY-1999;	99US-0132863.	PR	22-JUL-1999;	99US-0145192.
PR	11-MAY-1999;	99US-0132867.	PR	23-JUL-1999;	99US-0145145.
PR	14-MAY-1999;	99US-0134218.	PR	23-JUL-1999;	99US-0145218.
PR	14-MAY-1999;	99US-0134221.	PR	26-JUL-1999;	99US-0145276.
PR	14-MAY-1999;	99US-0134370.	PR	27-JUL-1999;	99US-0145313.
PR	18-MAY-1999;	99US-0134768.	PR	27-JUL-1999;	99US-0145918.
PR	19-MAY-1999;	99US-0134941.	PR	28-JUL-1999;	99US-0145951.
PR	20-MAY-1999;	99US-0135124.	PR	02-AUG-1999;	99US-0146386.
PR	21-MAY-1999;	99US-0135353.	PR	02-AUG-1999;	99US-0146389.
PR	24-MAY-1999;	99US-0135629.	PR	03-AUG-1999;	99US-0147038.
PR	25-MAY-1999;	99US-0136021.	PR	04-AUG-1999;	99US-0147204.
PR	27-MAY-1999;	99US-0136392.	PR	04-AUG-1999;	99US-0147702.
PR	28-MAY-1999;	99US-0136782.	PR	05-AUG-1999;	99US-0147712.
PR	01-JUN-1999;	99US-0137222.	PR	05-AUG-1999;	99US-0147760.
PR	03-JUN-1999;	99US-0137528.	PR	06-AUG-1999;	99US-0147769.
PR	04-JUN-1999;	99US-0137502.	PR	06-AUG-1999;	99US-0147703.
PR	07-JUN-1999;	99US-0137724.	PR	07-AUG-1999;	99US-0147416.
PR	08-JUN-1999;	99US-0138094.	PR	09-AUG-1999;	99US-0147493.
PR	10-JUN-1999;	99US-0138540.	PR	09-AUG-1999;	99US-0147935.
PR	10-JUN-1999;	99US-0138847.	PR	10-AUG-1999;	99US-0148171.
PR	14-JUN-1999;	99US-0139119.	PR	11-AUG-1999;	99US-0148319.
PR	16-JUN-1999;	99US-0139457.	PR	12-AUG-1999;	99US-0148341.
PR	16-JUN-1999;	99US-0139458.	PR	13-AUG-1999;	99US-0148565.
PR	17-JUN-1999;	99US-0139459.	PR	13-AUG-1999;	99US-0148684.
PR	18-JUN-1999;	99US-0139492.	PR	16-AUG-1999;	99US-0149168.
PR	18-JUN-1999;	99US-0139454.	PR	17-AUG-1999;	99US-0149175.
PR	18-JUN-1999;	99US-0139455.	PR	18-AUG-1999;	99US-0149426.
PR	18-JUN-1999;	99US-0139456.	PR	20-AUG-1999;	99US-0149722.
PR	18-JUN-1999;	99US-0139750.	PR	20-AUG-1999;	99US-0149723.
PR	21-JUN-1999;	99US-0139763.	PR	20-AUG-1999;	99US-0149829.
PR	22-JUN-1999;	99US-0139817.	PR	23-AUG-1999;	99US-0149902.
PR	18-JUN-1999;	99US-0139461.	PR	23-AUG-1999;	99US-0149930.
PR	18-JUN-1999;	99US-0139462.	PR	25-AUG-1999;	99US-0150566.
PR	18-JUN-1999;	99US-0139463.	PR	26-AUG-1999;	99US-0150884.
PR	18-JUN-1999;	99US-0139468.	PR	27-AUG-1999;	99US-0151065.
PR	28-JUN-1999;	99US-0140823.	PR	27-AUG-1999;	99US-0151066.
PR	29-JUN-1999;	99US-0140991.	PR	30-AUG-1999;	99US-0151303.
PR	30-JUN-1999;	99US-0141287.	PR	31-AUG-1999;	99US-0151438.
PR	01-JUN-1999;	99US-0141842.	PR	01-SEP-1999;	99US-0151930.
PR	01-JUL-1999;	99US-0142154.	PR	07-SEP-1999;	99US-015263.
PR	24-JUN-1999;	99US-0142055.	PR	10-SEP-1999;	99US-0153070.
PR	06-JUL-1999;	99US-0142390.	PR	13-SEP-1999;	99US-015578.
PR	08-JUL-1999;	99US-0142803.	PR	15-SEP-1999;	99US-0156118.
PR	12-JUL-1999;	99US-0142920.	PR	16-SEP-1999;	99US-0156596.
PR	13-JUL-1999;	99US-0143542.	PR	20-SEP-1999;	99US-0157117.
PR	02-JUL-1999;	99US-0143624.	PR	22-SEP-1999;	99US-0155339.
PR	15-JUL-1999;	99US-0144005.	PR	05-OCT-1999;	99US-0157753.
PR	16-JUL-1999;	99US-0144085.	PR	06-OCT-1999;	99US-0157865.
PR	19-JUL-1999;	99US-0144086.	PR	07-OCT-1999;	99US-0158029.
PR	19-JUL-1999;	99US-0144325.	PR	08-OCT-1999;	99US-0158332.
PR	19-JUL-1999;	99US-0144331.	PR	13-OCT-1999;	99US-0159293.

PR 13-OCT-1999; 99US-0152294. XX
 PR 13-OCT-1999; 99US-0159395. PR 16-DBC-1999; 99JP-0377484.
 PR 13-OCT-1999; 99US-0159329. PR 07-IPR-2000; 2000JP-0159162.
 PR 14-OCT-1999; 99US-0153330. PR 03-AUG-2000; 2000JP-028098.
 PR 14-OCT-1999; 99US-0159331. XX
 PR 14-OCT-1999; 99US-0159637. PA.
 PR 18-OCT-1999; 99US-0159584. XX
 PR 21-OCT-1999; 99US-0160741. PI
 PR 21-OCT-1999; 99US-0160767. Tateishi N, Senoh A, Ikeda M, Ozaki A; XX
 PR 21-OCT-1999; 99US-0160768. DR
 PR 21-OCT-1999; 99US-0160770. N-PSDB; AAH6357.
 PR 21-OCT-1999; 99US-0160814. XX
 PR 21-OCT-1999; 99US-0160815. PI
 PR 22-OCT-1999; 99US-0160981. PT
 PR 22-OCT-1999; 99US-0160989. PT
 PR 22-OCT-1999; 99US-0161404. XX
 PR 25-OCT-1999; 99US-0161405. FS
 PR 25-OCT-1999; 99US-0161406. XX
 PR 26-OCT-1999; 99US-0161359. CCC
 PR 26-OCT-1999; 99US-0161360. CCC
 PR 28-OCT-1999; 99US-0161361. CCC
 PR 28-OCT-1999; 99US-0161992. CCC
 PR 28-OCT-1999; 99US-0161993. CCC
 PR 29-OCT-1999; 99US-0162142. CCC

Query Match 13.8%; Score 273; DB 21; Length 423;

Best Local Similarity 26.1%; Pred. No. 5.5e-21; Mismatches 71; Conservative 50; MisMatches 107; Indels 44; Gaps 6; Matches 71; Conservative 50; MisMatches 107; Indels 44; Gaps 6;

QY 35 TWSTVNMGLMFSLGCSVEIRKLWHSIRRPGIAVGLCQFGLMPTAYLLATSRSLKP 94
 DB 128 PDLFLTGIGFLMLSMGLLTFLDFRRCLRNPTVGVGFLACQYMIKPLIGFLMLTILKLSA 187

QY 95 VQALAVLIMGCPGGTSINTTFTWVQGDMDSISMTCTVALGMMPLICYLIVTWSL 154

DB 188 PLATGLLIVSCLGCSASNVATYISKVNLSSVLMTCSTGAIATMPLT----KL 240

QY 155 QONLTIPYQONIGI--TIVCCTIPVAFGVVYNRWRPKOSKTIILKIGAVVGVLVLLVA-- 209

DB 241 LAGQLVPLVDAAGLSTIFQVVLVPTIGLNAEFFFKFTSIIITVPLIGVILTTICAS 300

QY 210 -----VAGVVLAKGSWNSDITLTISFFPPL-TGHVNGFLLAFTHO 250

DB 301 PTGIGIDYVLLSSEKIGQVALVLTQCA-----QLLPVALLHAAFAIGYWISK 350

QY 251 --SWQRCRTSLETQANQIMCITMQLSTT 279

DB 351 PSFGEISNRTSIECGWQSSALGFQLAQKHT 382

RESULT 10
 AAG91138

ID AAG91138 standard; Protein; 335 AA.

AC AAG91138;
 XX

DT 26-SEP-2001 (first entry)

XX
 DE C glutamic acid protein fragment SEQ ID NO: 4892.

XX Coryneform bacterium; amino acid synthesis; vitamin; saccharide; organic acid synthesis.

OS Corynebacterium glutamicum.

XX
 XX
 PN EP1-08790-A2.

XX
 PD 20-JUN-2001.

XX
 PP 18-DBC-2000; 2000EP-0127688.

Query Match 13.6%; Score 268.5; DB 22; Length 335;
 Best Local Similarity 25.7%; Pred. No. 1.2e-20; Mismatches 76; Conservative 72; MisMatches 127; Indels 21; Gaps 7; Matches 76; Conservative 72; MisMatches 127; Indels 21; Gaps 7;

QY 31 BLVFTVSTV--MMGLIMFSLGCSVEIRKLWHSIRRPGIAVGLCQFGLMPTAYLLAT 88

DB 40 DVNLISWSWNPILGIIIMFSMGLITKPVDFALVAKRPLPVLIGVIAQFVIMPLIAVLLVV 99

QY 89 SFSLKEVQAVLIMGCCPGGTISNITFTWVQGDMDSISMTCTVALGMMPLICYL 148

DB 100 VQLPAAIAAGVILVGCAGPGGTTSNNVSVLSRGDVAVLSVMTSITLAPITPLTL- 157

QY 149 TWSLQLQNLTIPIYQONIGIIV-CITIPVAFGVVYNRWRPKOSKTIILKIGAVVGVLV 207

DB 158 --WLAGQYMPNRAADMVSVQVWVLPVYVGLVVRLLIP--TULIGKVLPLWISVA 211

QY 208 VAVGVVLAKGS---WNSDTLTLTISFFPLIGVTFGLLALFTHQSMQRCTISLETG 263

DB 212 ISLIVAVVAGSRDKLIEAGLIVLAVVITHTLGLGIVLAFTGQPAARRTAIEVG 271

QY 264 AONTIGCITMQLSFTAEHLVOMLSFPLA-YGLRQLDGSFLIVAVYAYTYGRRLK 318

DB 272 MQN----SGLAAGLASQWSPMSALPGATFSWHLNSLGALLAALCRASDRAEK 322

RESULT 11
 ABB70896

ID ABB70896 standard; Protein; 455 AA.

XX
 AC ABB70896;
 XX

DT 26-MAR-2002 (first entry)

XX
 DE Drosophila melanogaster polypeptide SEQ ID NO 39480.

XX
 KW Drosophila; developmental biology; cell signalling; insecticide; pharmaceutical.

XX
 DT 01-JUL-2002 (first entry)
 XX
 DE Human gene 8 encoded secreted protein HCPB32, SEQ ID NO:63.
 XX
 KW Human; secreted protein; immune disorder; antiallergic; antirheumatic;
 KW rheumatoid arthritis; breast neoplasia; breast cancer; antiarthritic;
 KW neurological disease; Alzheimer's disease; Parkinson's disease; trauma;
 KW Tourette syndrome; encephalitis; cytostatic; haemostatic; anaemia; mania;
 KW antiinflammatory; ophthalmological; dermatological; immunostimulatory;
 KW immunomodulatory; immunosuppressive; antibacterial; antipsoriatic;
 KW gene therapy; autoimmune disease; Huntington's disease; meningitis;
 KW demyelinating disease; peripheral neuropathy; ischaemia; perception;
 KW multiple sclerosis; infarction; haemorrhage; schizophrenia; dementia;
 KW depression; panic disorder; learning disability; AUS; feeding disorder;
 KW hyperproliferative disorder; sleep pattern; cardiovascular disorder;
 KW reproductive disorder; digestive system disorder; behavioural disorder.
 XX
 HOMO sapiens.
 XX
 FH
 FT Key Location/Qualifiers
 FT Peptide 1.:25
 FT Protein /label= Signal_peptide
 FT Misc-difference 26.:95 /note= "Human mature secreted protein"
 FT /label= Unknown
 FT /note= "Encoded by YAT"
 FT Misc-difference 175 /label= Unknown
 FT /note= "Encoded by GKA"
 FT Misc-difference 177 /label= Unknown
 FT /note= "Encoded by GKT"
 FT Misc-difference 181 /label= Unknown
 FT /note= "Encoded by GKA"
 FT Misc-difference 185 /label= Unknown
 FT /note= "Encoded by YCA"
 FT Misc-difference 188 /label= Unknown
 FT /note= "Encoded by ARA"
 FT Misc-difference 189 /label= Unknown
 FT /note= "Encoded by ASC"
 PN WO200216390-A1.
 XX
 PD 28-FEB-2002.
 XX
 PP 17-JAN-2001; 2001WO-US01435.
 XX
 PR 18-AUG-2000; 2000US-226282P.
 XX
 PA (HUMA-) HUMAN GENOME SCI INC.
 XX
 PI Rosen CA, Komatsoulis GA, Baker KP, Birse CE, Soppet DR, Olsen HS;
 PI Moore PA, Wei P, Ebner R, Duan DR, Shi Y, Choi GH, Ficella M;
 PI Ni J;
 XX
 DR WPI; 2002-304113/34.
 XX
 N-PSDB; AAD33699.
 XX
 PT An isolated nucleic acid molecule (1) comprising a polynucleotide which
 PT encodes a polypeptide useful in the diagnosis and treatment of
 PT disorders e.g. immune disorders -
 Claim 11; Page 477; 534pp; English.
 CC AAD33692-AAD33736 represent cDNAs corresponding to 21 human secreted
 CC protein genes, and AAB21191-AAB21235 represent the proteins they encode.

CC AAE21236-AAE21280 represent human secreted protein fragments. The genes
 CC and their corresponding secreted proteins are useful for preventing,
 CC treating or ameliorating medical conditions, e.g., by protein or gene
 CC therapy. Pathological conditions can be diagnosed by determining the
 CC amount of the new protein in a sample or by determining the presence of
 CC mutations in the new genes. Specific uses are described for each of the
 CC 21 genes, based on the tissues in which they are most highly expressed,
 CC and include developing products for the diagnosis or treatment of
 CC immune or autoimmune diseases e.g. AIDS (acquired immune deficiency
 CC syndrome), asthma, anaemia and rheumatoid arthritis, breast neoplasia,
 CC and breast cancer, neurological diseases e.g. Alzheimer's disease,
 CC Parkinson's disease, Huntington's disease, Tourette syndrome,
 CC meningitis, demyelinating disease, peripheral neuropathies, neoplasia,
 CC trauma, congenital malformations, spinal cord injuries, toxic
 CC neuropathies induced by neurotoxins, peripheral neuropathies, multiple
 CC sclerosis, ischaemia and infarction, haemorrhages, schizophrenia, mania,
 CC dementia, depression, panic disorder, learning disabilities, AUS,
 CC altered behaviours e.g. disorders in feeding, sleep patterns, balance
 CC and perception, encephalitis, disorders in cardiovascular, neural/
 CC sensory, reproductive and digestive systems, behavioural disorders and
 CC hyperproliferative disorder. The present sequence represents a human
 CC secreted protein of the invention.

XX
 Sequence 196 AA:
 XX
 RESULT 14
 AAG92300
 ID AAG92300 standard; Protein; 324 AA.
 XX
 AC AAG92300;
 XX
 DT 26-SEP-2001 (first entry)
 XX
 DB C glutamic acid protein fragment SEQ ID NO: 6054.
 XX
 KW Coryneform bacterium; amino acid synthesis; vitamin; saccharide;
 KW organic acid synthesis.
 XX
 OS Corynebacterium glutamicum.
 XX
 PN EP108790-A2.
 XX
 PD 20-JUN-2001.
 XX
 PR 18-DEC-2000; 2000EP-0127688.
 XX
 PR 16-DEC-1999; 99JP-0377484.
 PR 07-APR-2000; 2000JP-0153162.
 PR 03-APR-2000; 2000JP-0289988.
 XX
 PR (KYOW) KYOWA HAKKO KOGYO KK.
 XX
 PA Nakagawa S, Mizoguchi H, Ando S, Hayashi M, Ochiai K, Yokoi H;
 PI Tateishi N, Senon A, Ikeda M, Ozaki A;
 XX
 DR WPI; 2001-376931/40.

DR N-PSDB; AAH67519.

XX Novel polynucleotides derived from Coryneform bacteria, for identifying
 PT expression point of a gene, measuring expression of a gene, analysing
 PT expression profile or pattern of a gene and identifying homologous gene
 PT

PS Claim 17; SEQ ID NO: 6054; 246pp + Sequence Listing; English.

CC The present invention provides a number of nucleotide and protein
 CC sequences from the Coryneform bacterium Corynebacterium glutamicum. These
 CC are useful for identifying the mutation point of a gene derived from a
 CC mutant of coryneform bacterium, measuring expression amount and
 CC analysing the expression profile or expression pattern of a gene derived
 CC from Coryneform bacterium, and identifying a homologue of a gene derived
 CC from Coryneform bacterium. Coryneform bacteria are useful for producing
 CC amino acids, nucleic acids, vitamins, saccharides and organic acids,
 CC particularly L-lysine. The present sequence is a protein described
 CC in the exemplification of the invention.
 Note: The sequence data for this patent did not form part of the printed
 specification, but was obtained in electronic format directly from the
 European Patent Office.

SQ Sequence 324 AA;

Query Match 13.4%; Score 264.5; DB 22; Length 324;
 Best Local Similarity 25.6%; Preg. No. 3; Je-20;
 Matches 66; Conservative 66; Mismatches 91; Indels 35; Gaps 6;

Qy 40 VVAGLGLMSLGSVEIRKWLHRRPAGVGLCQFLMPAYLAISSRIKPVIA 99
 Db 44 IELTINPMTMGLTVPDFQMVKRPPLILIGVQAQFVIMPELAVVAKMENINPALVG 103
 Qy 100 VLTMGCCPQGTTSNIFTWVGDMSLSMTCTSVTAALGMPMLCTVLYT----- 149
 Db 104 LILMGSPVPGGTSNNVIAFLARGDVALSVTMSVSTIVSPIMPFMLMLAGTBADGG 163
 Qy 150 WMSLQDMITIPQNIGITLVCUTIPVAFGVVNVYRPKQSKLILKIGAVGVGULLJWA 209
 Db 164 MAWTLVQFLVLP-----VIGLVLVFLN-KWIDKLPLIPLYSILG----- 204
 Qy 210 VAGVILAKGSNSD-ITLITSRIPPLIGHVGFMLALFTWSQ--REPTISLETG 263
 Db 205 IGGWVFGAVATAERLVSUVGLIVFHIVNVLYGVVGGYLTGRVKEPPEANRMTAEIG 264
 Qy 264 AQNIQMCITMLQLSFTAE 281
 Db 265 TOSAGLISGAGMAGRFPTF 282

JULY 15
 AAG22454 ID AAG22454 standard; Protein; 271 AA.
 AC AAG22454;
 XX 17-OCT-2000 (first entry)
 DE Arabidopsis thaliana protein fragment SEQ ID NO: 25388.
 XX Protein identification; signal transduction pathway; metabolic pathway;
 KW hybridisation assay; genetic mapping; gene expression control; promoter;
 XX termination sequence.
 OS Arabidopsis thaliana.
 XX EP1033405-A2.
 PN 06-SEP-2000.
 XX 25-FEB-2000; 2000EP-0301439.
 PR 25-FEB-1999; 99US-0121825.

PR 05-MAR-1999; 99US-0123180.
 PR 09-MAR-1999; 99US-0123348.
 PR 23-MAR-1999; 99US-0125788.
 PR 25-MAR-1999; 99US-0126264.
 PR 29-MAR-1999; 99US-0126855.
 PR 01-APR-1999; 99US-0127462.
 PR 06-APR-1999; 99US-0128234.
 PR 08-APR-1999; 99US-0128714.
 PR 16-APR-1999; 99US-0129845.
 PR 19-APR-1999; 99US-0130077.
 PR 21-APR-1999; 99US-0130449.
 PR 23-APR-1999; 99US-0130510.
 PR 23-APR-1999; 99US-0131449.
 PR 28-APR-1999; 99US-0131449.
 PR 30-APR-1999; 99US-0132048.
 PR 30-APR-1999; 99US-0132407.
 PR 04-MAY-1999; 99US-0132484.
 PR 05-MAY-1999; 99US-0132485.
 PR 06-MAY-1999; 99US-0132487.
 PR 07-MAY-1999; 99US-0132863.
 PR 11-MAY-1999; 99US-0134256.
 PR 14-MAY-1999; 99US-0134218.
 PR 14-MAY-1999; 99US-0134229.
 PR 14-MAY-1999; 99US-0134370.
 PR 18-MAY-1999; 99US-0134768.
 PR 19-MAY-1999; 99US-0134941.
 PR 20-MAY-1999; 99US-0135124.
 PR 21-MAY-1999; 99US-0135555.
 PR 24-MAY-1999; 99US-0135629.
 PR 25-MAY-1999; 99US-0136021.
 PR 27-MAY-1999; 99US-0136329.
 PR 28-MAY-1999; 99US-0136782.
 PR 01-JUN-1999; 99US-0137222.
 PR 03-JUN-1999; 99US-0137528.
 PR 04-JUN-1999; 99US-0137502.
 PR 07-JUN-1999; 99US-0137724.
 PR 08-JUN-1999; 99US-0138094.
 PR 10-JUN-1999; 99US-0138240.
 PR 14-JUN-1999; 99US-0139119.
 PR 16-JUN-1999; 99US-0139452.
 PR 16-JUN-1999; 99US-0139453.
 PR 17-JUN-1999; 99US-0139492.
 PR 18-JUN-1999; 99US-0139454.
 PR 18-JUN-1999; 99US-0139455.
 PR 18-JUN-1999; 99US-0139457.
 PR 18-JUN-1999; 99US-0139458.
 PR 18-JUN-1999; 99US-0139460.
 PR 18-JUN-1999; 99US-0139461.
 PR 18-JUN-1999; 99US-0139462.
 PR 18-JUN-1999; 99US-0139463.
 PR 18-JUN-1999; 99US-0139500.
 PR 18-JUN-1999; 99US-0139763.
 PR 21-JUN-1999; 99US-0139817.
 PR 22-JUN-1999; 99US-0139839.
 PR 22-JUN-1999; 99US-0140353.
 PR 23-JUN-1999; 99US-0140354.
 PR 24-JUN-1999; 99US-0140595.
 PR 28-JUN-1999; 99US-0140923.
 PR 29-JUN-1999; 99US-0140991.
 PR 30-JUN-1999; 99US-0141287.
 PR 01-JUN-1999; 99US-0141842.
 PR 01-JUN-1999; 99US-0142154.
 PR 02-JUN-1999; 99US-0142055.
 PR 06-JUN-1999; 99US-0142390.
 PR 08-JUN-1999; 99US-0142803.
 PR 09-JUN-1999; 99US-0142202.
 PR 12-JUN-1999; 99US-0142977.
 PR 13-JUL-1999; 99US-0143542.

PR 14-JUL-1999; 99US-0143624.
 PR 15-JUL-1999; 99US-0144005.
 PR 16-JUL-1999; 99US-0144085.
 PR 19-JUL-1999; 99US-0144325.
 PR 19-JUL-1999; 99US-0144331.
 PR 19-JUL-1999; 99US-0144332.
 PR 19-JUL-1999; 99US-0144333.
 PR 19-JUL-1999; 99US-0144334.
 PR 19-JUL-1999; 99US-0144335.
 PR 20-JUL-1999; 99US-0144352.
 PR 20-JUL-1999; 99US-0144632.
 PR 20-JUL-1999; 99US-0144884.
 PR 21-JUL-1999; 99US-0144914.
 PR 21-JUL-1999; 99US-0145086.
 PR 21-JUL-1999; 99US-0145088.
 PR 22-JUL-1999; 99US-0145085.
 PR 22-JUL-1999; 99US-0145087.
 PR 22-JUL-1999; 99US-0145089.
 PR 22-JUL-1999; 99US-0145192.
 PR 23-JUL-1999; 99US-0145145.
 PR 23-JUL-1999; 99US-0145218.
 PR 23-JUL-1999; 99US-0145224.
 PR 26-JUL-1999; 99US-0145276.
 PR 27-JUL-1999; 99US-0145513.
 PR 27-JUL-1999; 99US-0145518.
 PR 28-JUL-1999; 99US-0145519.
 PR 02-AUG-1999; 99US-0146386.
 PR 02-AUG-1999; 99US-0146388.
 PR 03-AUG-1999; 99US-0147038.
 PR 04-AUG-1999; 99US-0147204.
 PR 05-AUG-1999; 99US-0147302.
 PR 06-AUG-1999; 99US-0147303.
 PR 06-AUG-1999; 99US-0147316.
 PR 09-AUG-1999; 99US-0147318.
 PR 09-AUG-1999; 99US-0147335.
 PR 10-AUG-1999; 99US-0148171.
 PR 11-AUG-1999; 99US-0148319.
 PR 12-AUG-1999; 99US-0148341.
 PR 13-AUG-1999; 99US-0148365.
 PR 16-AUG-1999; 99US-0149368.
 PR 17-AUG-1999; 99US-0149175.
 PR 18-AUG-1999; 99US-0149126.
 PR 20-AUG-1999; 99US-0149722.
 PR 20-AUG-1999; 99US-0149723.
 PR 21-AUG-1999; 99US-0149802.
 PR 23-AUG-1999; 99US-0149330.
 PR 25-AUG-1999; 99US-0150566.
 PR 26-AUG-1999; 99US-0150884.
 PR 27-AUG-1999; 99US-0151066.
 PR 27-AUG-1999; 99US-0151080.
 PR 30-AUG-1999; 99US-0151303.
 PR 31-AUG-1999; 99US-0151438.
 PR 01-SEP-1999; 99US-0151930.
 PR 07-SEP-1999; 99US-0152363.
 PR 10-SEP-1999; 99US-0153070.
 PR 13-SEP-1999; 99US-0153759.
 PR 15-SEP-1999; 99US-0154018.
 PR 16-SEP-1999; 99US-0154039.
 PR 20-SEP-1999; 99US-0154779.
 PR 22-SEP-1999; 99US-0155139.
 PR 23-SEP-1999; 99US-0155456.
 PR 24-SEP-1999; 99US-0155559.
 PR 28-SEP-1999; 99US-0156458.
 PR 29-SEP-1999; 99US-0156536.
 PR 04-OCT-1999; 99US-0157117.

PR 05-OCT-1999; 99US-0157753.
 PR 06-OCT-1999; 99US-0157865.
 PR 07-OCT-1999; 99US-0158029.
 PR 08-OCT-1999; 99US-0158232.
 PR 12-OCT-1999; 99US-0158369.
 PR 13-OCT-1999; 99US-0159293.
 PR 13-OCT-1999; 99US-0159294.
 PR 13-OCT-1999; 99US-0159295.
 PR 14-OCT-1999; 99US-0159329.
 PR 14-OCT-1999; 99US-0159330.
 PR 14-OCT-1999; 99US-0159331.
 PR 14-OCT-1999; 99US-0159637.
 PR 14-OCT-1999; 99US-0159638.
 PR 18-OCT-1999; 99US-0159584.
 PR 21-OCT-1999; 99US-0160741.
 PR 21-OCT-1999; 99US-0160767.
 PR 21-OCT-1999; 99US-0160770.
 PR 21-OCT-1999; 99US-0160814.
 PR 21-OCT-1999; 99US-0160815.
 PR 22-OCT-1999; 99US-0160981.
 PR 22-OCT-1999; 99US-0160989.
 PR 22-OCT-1999; 99US-0161098.
 PR 25-OCT-1999; 99US-0161404.
 PR 25-OCT-1999; 99US-0161405.
 PR 25-OCT-1999; 99US-0161406.
 PR 26-OCT-1999; 99US-0161359.
 PR 26-OCT-1999; 99US-0161360.
 PR 26-OCT-1999; 99US-0161361.
 PR 28-OCT-1999; 99US-0161920.
 PR 28-OCT-1999; 99US-0161922.
 PR 28-OCT-1999; 99US-0161993.
 PR 29-OCT-1999; 99US-0162142.

Query Match 13.3%; Score 264; DB 21; Length 271;
 Best Local Similarity 27.1%; Pred. No. 2.9e-20; Mismatches 103; Indels 30; Gaps 6;
 Matches 67; Conservative 4.7; Mismatches 103; Indels 30; Gaps 6;

Qy 46 MPSLGCSSVEIRKLWHSIRRPGWIGAVGLQFGMLPFTAVILASPSLKPVQAVIAVLIMC 105
 Db 1 MLSMGMLLTFLDFRRCLRNFWTVGVGFQLAQYMIKPLGFLLAATLKLASPLATGLVLSC 60

Qy 106 CPGGTISINITFWGDMDLSISMTCTVAALGMPICILYVWSLQONLTIPQMT 165
 Db 61 CPGGGASNVATYISKVNLASVLMPTQSTIGAATMPLT-----KLLAGOLPVDIA 113

Qy 166 GI---TIVCLTIPVARGVYNYWRPKQSKILKIGAVGVGVLLVVA-----VAGVVA 216
 Db 114 GIAATTFQVVLVPUITIGVLANEEFFKFTSKITVPLIGVILTLICASPIQVADVLKT 173

Qy 217 KGSWNDDITLITISFIFPL-TGHVTFPLALFTHO---SWORCRNTISLGAONIOMCIT 272

Db 174 QGA-----QILIPVALLHAFAAFAIGYWISKFSFGESTSRSTISIECGMOSALAGFL 223

Qy 273 MQLSFT 279

Db 224 LAQKHT 230

Search completed: June 9, 2003, 07:08:08
 Job time : 44 sec

THIS PAGE BLANK (USPTO)